



SOV/3-59-5-8/34

22(1)

AUTHORS: Zhernakov, M., and Tugashev, Z., Students

TITLE: Our Readers Suggest

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 5, p 30 (USSR)

ABSTRACT:

The new curriculum provides that the students of the Kemerovo Mining Institute will attend one year of practical training after the 3rd or 4th course. In the authors' opinion, it will be difficult to realize the plan in practice. The year of practical training will, moreover, cause a great interruption in the theoretical instruction and reduce considerably the quality of the educational work. They suggest that the 3rd course should be followed by 6 months practical training courses and one semester of theoretical training in 3 alternate turns. During the practical training the students would be able to work independently on some theoretical subjects and it would

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Our Readers Suggest

not be necessary to increase the term of training  
to 6 years.

ASSOCIATION: Kemerovskiy gornyy institut (Kemerovo Mining In-  
stitute).

Card 2/2

TKACHEV, V.V., inzh.; SHOLENINOV, V.M., inzh.; Prinimani uchastiyu:  
KONSTANTINOV, V.G.; LEVIN, L.Ya.; GRIGORIYEVYKH, G.F.;  
ZAKHAROV, V.N.; ZHDANOV, I.A.; PUZANOV, N.A.; SUKHANOV, V.I.;  
VASIL'YEV, A.M.; ZHELEZNAYA, P.T.; TUGARINOVA, Ye.A.; LEVKIN,  
A.S.; MOKIYEVSKIY, N.M.; SHAKHALOV, V.; SMIRNOV, A.I.

Developing the technology of producing a high-basicity  
open-hearth sinter. Stal' 25 no.8:683-686 Ag '65.

(MIRA 18:8)

1. Cherepovetskiy metallurgicheskiy zavod (for Tkachev,  
Sholeminov).

PILDER VASSER, M. F., Engr.; TUGAY, A. D.

"Operating experience in using a bridge grab crane in the storage of clay"

Ogneupory, No. 11, 1949

Form 1, A. 1.

"Operating experience in using a bridge grab crane in the storage of clay"

Ogneupory, No. 11, 1949

TUGAY, L. N.

"Influence of the Type of Fodder on the Growth Development,  
and Fattening of Young Ukrainian White Pigs." Cand Agr Sci, Khar'kov  
Zootechnical Inst, Khar'kov, 1953. (RZhBiol, No 3, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR  
Higher Educational Institutions (10)

So: Sum. No. 481, 5 May 55 .

SVECHIN, K.B., prof., otv. red.; KOLESNIK, N.N., red.; PSHENICHNYI,  
P.D., akademik, red.; TUGAY, L.N., kand. sel'khoz. nauk,  
red.; SHMATOK, Ye.G., kand. sel'khoz. nauk, red.; FEDII,  
Ye.M., doktor biol. nauk, red.; MAZUR, V.N., red.;  
POTOTSKAYA, L.A., tekhn. red.

[Biological principles underlying increase in the meat  
quality of farm animals] Biologicheskie osnovy povysheniia  
miasnykh kachestv sel'skokhoziaistvennykh zhivotnykh; ma-  
terialy konferentsii. Kiev, 1962. 164 p. (MIRA 16:10)

1. Kiev. Ukrains'ka akademiya sil's'kohospodars'kykh nauk.
2. Chlen-korrespondent Ukr. akademii sel'skokhozyaystvennykh  
nauk (for Kolesnik).
3. Ukrainskaya akademiya sel'skokho-  
zyaystvennykh nauk (for Pshenichnyy, Svechin)  
(Stock and stockbreeding)



TUGAY, V.; TITOVA, V.

Improvement of the processing of poultry and labor productivity.  
Mias ind SSSR 34 no. 6:25-27 '63. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ptitse-pererabatyvayushchey promyshlennosti.

TUGAY, V.

Methods for calculating wages for conveying line workers in poultry  
combines. Mias.ind. SSSR 33 no.3:40-41 '62. (MIRA 15:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut pitsepere-  
rabatyvayushchey promyshlennosti.  
(Wages--Poultry plants)

TUGAY, V.

Wage system of workers in charge of poultry feeding. Mias.ind.  
SSSR 31 no.6:35-37 '60. (MIEA 13:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut ptitsepererabaty-  
vayushchey promyshlennosti.  
(Poultry--Feeding and feeds) (Wages and labor productivity)

TUGAY, V.

New system of wages for workers engaged in the feeding of poultry.  
Mias. ind. SSSR 29 no.2:41-43 '58. (MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ptitsepererabatyvayushchey promyshlennosti.  
(Poultry plants) (Wages)

SHUL'MAN, G.; TUGAY, V.

Brigade system for line slaughtering and processing of poultry. Mias.  
ind.SSSR 32 no.6:38-39 '61. (MIRA 15:2)

1. Moskovskiy ptitsekombinat (for Shul'man). 2. Tsentral'nyy  
nauchno-issledovatel'skiy institut ptitsepererabatyvayushchey  
promyshlennosti (for Tugay).  
(Poultry plants--Labor productivity)

TUGAYEV, I.S.

New developments in the technology of shaft lining by means of  
tubing. Shakht. stroi. no.9:20-21 '58. (MIRA 11:10)

1.Nauchno-issledovatel'skiy sektor kombinata Rostovshakhtostroy.  
(Shaft sinking) (Reinforced concrete construction)

TUGAYEV, I.S., inzh.

New portable switches for mine railroad tracks. Ugol' 36  
no.6:38 Je '61. (MIRA 14:7)

1. Normativno-issledovatel'skaya stantsiya No.2 kombinata  
Rostovshakhtostroy.  
(Mine railroads)

TUGAYEV, I.S., inzh.

Water drilling of blast holes in rocks. Bezop.truda v prom. 5  
no.7:24-25 J1 '61. (MIRA 14:6)

1. Normativno-issledovatel'skaya stantsiya No. 2 kombinata  
Rostovshakhtostroy.  
(Boring)



TUGAYEV, I.S., inzh.

Prevent the breakage of tubings. Shakht.stroi. 4  
no.9:27-28 S '60. (MIRA 13:8)

1. Normativno-issledovatel'skaya stantsiya kombinata  
Rostovshakhtostroy.  
(Shaft sinking) (Mine timbering)

~~TUGAYEV, I.S.:~~ inzh.

Mining with slab entry heading. Shakht. stroi. no.6:11-13 '58.  
(MIRA 11:6)

1. Nauchno-issledovatel'skiy sektor No.2 kombinata Rostovshakhtostroy.  
(Mining engineering)

MARTYSENKO, I.A., inzh.; MILYAYEV, I.S., inzh.; TUGAYEV, T.S., inzh.;  
KOTLYARSKIY, I.A., inzh.; MOREV, A.B., inzh.; MUDRYAK, V.A.,  
inzh.; SUDOPLATOV, A.P., prof.; IVANOV, K.I., kand. tekhn. nauk;  
IGNAT'YEV, A.D., kand. tekhn. nauk; KOLYSHKIN, O.M., kand. tekhn.  
nauk; YEREMENKO, Ye.I., inzh.

Industrial testing of the auger drilling of coal with double  
spindle auger drilling machines. Ugol' 40 no.1:32-37 Ja '65.  
(MIRA 18:4)

1. Kombinat Ukrzapadugol' (for Martynenko, Milyayev, Tugayev).
2. Gorlovskiy mashinostroitel'nyy zavod im. S.M.Kirova (for  
Kotlyarskiy, Morev, Mudryak).
3. Institut gornogo dela im.  
A.A.Skochinskogo (for Sudoplatov, Ivanov, Ignat'yev, Kolyshkin,  
Mel'nikov, Yeremenko).

TUGE, Hideomi; CHANG HUI YUEH

Functional compensation of the somatic and visceral components of the defensive conditioned reflexes after decerebration in young pigeons. *Activ. nerv. sup.* 4 no.3/4:275-283 '62.

1. Biological and Physiological Laboratory, Hosei University, Tokyo.  
(REFLEX CONDITIONED) (DECEREBRATE STATE)

TUGEL'BAYEV, G.

Kirghiz S.S.R. Prom.koop. no.1:15 Ja '57.

(MLRA 10:4)

1. Predsedatel' pravleniya Kirgizpromsoвета.  
(Kirghizistan--Cooperative societies)

L 36790-66 EWP(k)/EWT(d)/EWP(h)/EWP(l)/EWP(v) BC

ACC NR: AP6018271

SOURCE CODE: UR/0121/66/000/002/0043/0043

AUTHOR: Blinov, Yu. Ye.; Tugengol'd, A. K.

ORG: None

TITLE: A circular optical transducer 10

SOURCE: Stanki i instrument, no. 2, 1966, 43

TOPIC TAGS: optic instrument, recording instrument, oscillograph, machine tool, clutch

ABSTRACT: The authors describe a circular optical transducer designed for registering angular displacements which may also be used for measuring linear displacement by an indirect method. This transducer makes it possible to register the displacement of an operating unit during transient and steady-state processes. A diagram is given showing the construction and components. The frame of the transducer is fixed on the rotating lead screw on the roller of the unit to be studied. A motion picture film with etched lines (see figure 1) is mounted on the frame by means of a collar. This film acts as a phonogram for sound frequency recording. An optical system is located inside the frame which transmits a fine beam of light through the film. The sequence of lines and transparent sections causes periodic variations in the light beam intensity during rotation of the lead screw. These variations are transformed into electric pulses by means of a photocell and amplifier. The electric pulses are registered on an oscillogram. The

UDC: 621-791.2:621.9

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B

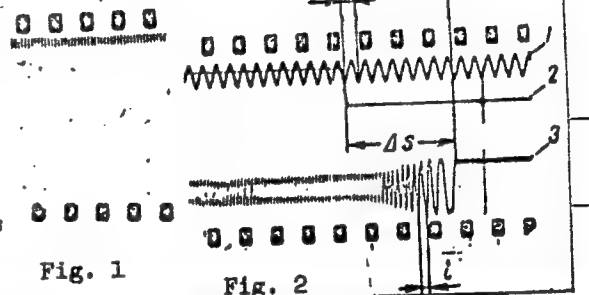
L 36790-66

ACC NR: AP6018271

discreteness of displacement registration is determined by the recording frequency of the phonogram (the distance between lines), while the number of pulses per revolution depends on the diameter of the transducer frame. If the parameters are chosen properly, pulses may be produced with widths measured in fractions of a micron. Practical parameters are as follows:

Pulse width $i$ in microns when the lead screw pitch is 4 mm	0.5	1	1	2	3	3	5	10
Recording frequency of the phonogram is cps	9130	9130	2300	2300	2300	913	913	913
Diameter of the transducer body in mm	127	64	254	127	85	212	127	64

An oscillogram is given (see figure 2) showing the displacement of a machine tool table with preset control. The following are recorded on the oscillogram: time markings (curve 1) with interval  $T$ ; the voltage of the electromagnetic clutch which disconnects the drive after a stop command (curve 2); the signal from the circular transducer (curve 3). Displacement  $\Delta s$



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ACC NR: AP6018271

of the table after disconnecting the clutch can be determined from the oscillogram (by the number of pulses  $N$  of the transducer and pulse width  $i$ ). Table travel time  $\Delta t$  can also be determined from the oscillogram by the number  $n$  of time markings and by the interval. The rate of table travel can be determined for individual sections by calculation. The accuracy of the transducer is chiefly dependent on the uniformity of the phonogram recording. Orig. art. has: 3 figures, 1 table. [Translation]

SUB CODE: 09, 13, 14/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 3/3 af



TUGENGOL'D, K.; ZHDANOVA, A., inzh.

Vital aspects in the organization of transportation by a mixed  
railroad - water system. Rech. transp. 21 no.9:8-9 S '62.  
(MIRA 15:9)

1. Zamestitel' nachal'nika otdela gruzovoy sluzhby Severo-  
Kavkazskoy zheleznoy dorogi (for Tugengol'd). 2. Sluzhba  
gruzovoy i kommercheskoy raboty Volgo-Donskogo parokhodstva  
(for Zhdanova).

(Transportation)

TUGENGOL'D, K.

Some problems in organizing combined waterway and railway transport  
and improving the planning of shipments. Mor. flot. 24 no.8:10 Ag  
'64. (MIRA 18:9)

1. Zamestitel' nachal'nika otdeal planirovaniya perevozok gruzovoy  
sluzhby Severo-Kavkazskoy zheleznoy dorogi.

TUGENGOL'D, K.

Direct variant of cargo loading and unloading. Mech. transp. 23  
no.10:17-18 0 '64. (MIRA 17:12)

1. Zamestitel' nachal'nika otдела planirovaniya perovozok "ruzovoy  
sluzhby Severo-Kavkazskoy zheleznoy dorogi.

Tugengol'D, Kirill Anatol'Yovich

N/S  
755.73  
.T9

Planirovaniye Gruzovykh Perevozok Na  
Zheleznoy Doroge /Planning of railway  
freight transportation/ Moskva,  
Transzheldorizdat, 1957.  
I 65 p. tables.  
Bibliographical footnotes

TUGENGOL'D, K.A. (Rostov-na-Donu)

Improvement of transportation conditions in Northern Caucasus.  
Zhel. dor. transp. 47 no.6:67-71 Je '65.

(MIRA 18:6)

1. Zamestitel' nachal'nika otдела planirovaniya perevozok gruzovoy  
sluzhby Severo-Kavkazskoy dorogi.

TUGENGOL'D, K.A.

Coordination of the transportation work in a large economic region.  
Zhel.dor.transp. 45 no.7:21-26 J1 '63. (MIRA 16:9)

1. Zamestitel' nachal'nika otдела planirovaniya perevozok Severo-  
Kavkazskoy dorogi, Rostov-na-Donu.  
(Freight and freightage)

TUGEYEV, K.S., starshiy prepodavatel'; MOROZOV, A.V., dotsent

Instrument for measuring the electric conductivity of textile materials. Tekst. prom. 24 no.4:64-66 Ap '64. (MIRA 17:6)

1. Kafedra fiziki Leningradskogo instituta legkoy i tekstil'noy promyshlennosti (LILTP) imeni S.M. Kirova.

TUGEYEV, K.S., assistant

Effect of finishes on the electric conductivity of staple  
fibers. Tekst.prom. 20 no.6:43-44 Je '60.  
(MIRA 13:7)

1. Kafedra fiziki Leningradskogo tekstil'nogo instituta im.  
S.M.Kirova.  
(Textile finishing)  
(Textile fibers—Electric properties)



MOROZOV, A. V.; TUGEYEV, K. S.; BORODOVSKIY, N. A.

Development of an electric charge in ~~mculine~~ yarns during  
rewinding on automatic reels. Tekst. prom. 23 no.3:42-45  
Mr '63. (MIRA 16:4)

1. Sotrudniki kafedry fiziki Leningradskogo tekstil'nogo  
instituta (LTI) imeni S. M. Kirova.

(Winding machines) (Electrostatics)

TUGEYEV, K.S., starshiy prepodavatel'; MOROZOV, A.V., dotsent

Unit for determining the electric conductivity of textile fabrics.  
Tekat. prom. 23 no.9:80-82 S '63. (MIRA 16:10)

1. Kafedra fiziki Leningradskogo tekstil'nogo instituta imeni  
Kirova.  
(Textile fibers—Electric properties)

GUBIN, Igor' Yevgen'yevich; SAVARENSKIY, Ye.F., otv.red.; TUGOLESOV,  
D.A., otv.red.; POPOVA, T.S., red.izd-va; GUS'KOVA, O.M.,  
tekhn.red.

[Mechanisms of seismic phenomena in Tajikistan; geology and  
seismicity] Zakonomernosti seismicheskikh proslavlenii na  
territorii Tadzhikistana; geologiya i seismichnost'. Moskva,  
Izd-vo Akad.nauk SSSR, 1960. 463 p.

(MIRA 14:2)

(Tajikistan--Seismology)

OFFMAN, P.Ye.; CHUMAKOV, N.M.; SHATSKIY, N.S., akademik, glavnyy red.;  
TUGOLESOV, D.A., red.toma; ARSEN'YEV, A.A., red.toma; KUN, N.R.,  
red.izd-va; ASTROV, A.V., red.izd-va; GUSEVA, A.P., tekhn.red.

[Tectonics of the U.S.S.R.] Tektonika SSSR. Glav.red.N.S.  
Shatskii. Moskva. Vol.4. [Tectonics and volcanic pipes in the  
central part of the Siberian Platform] Tektonika i vulkanicheskie  
trubki tsentral'noi chasti Sibirskoi platformy. [Stratigraphy and  
tectonics of the southwestern part of the Vilyuy Lowland] Strati-  
grafiia i tektonika iugo-zapadnoi chasti Viliuiskoi vpadiny.  
1959. 461 p. (MIRA 12:11)

1.Akademiya nauk SSSR. Geologicheskii institut.  
(Russian Platform--Geology, Structural)  
(Russian Platform--Volcanoes) (Vilyuy Lowland--Geology)

KUZNETSOV, Yu.Ya.; PRUSOV, V.V.; TUGOLESOV, D.A.

Tectonics and prospects for finding oil and gas in the Usturt.  
Sov. geol. 6 no.10:24-31 0 '63. (MIRA 17:1)

1. Aerogeologicheskaya ekspeditsiya Geologicheskogo instituta  
AN SSSR.

TUGOLESOV, D.A.

Methods for the compilation of tectonic maps as revealed by a study  
of the Usturt. Trudy GIN no.92:290-321 '63.

(MIRA 17:10)

TUGOLESOV, D.A.

Tectonics of the South Turkmenian trough. Geotektonika no.4:66-83  
Jl-Ag '65. (MIRA 18:8)

1. Geologicheskii institut AN SSSR.

TUGOLESOV, D.A.

60/49T41

USSR/Geology  
Littoral Dynamics  
Tectonics

Nov/Dec 48

"Principles Governing the Transgression and Regression of the Caspian Sea," D. A. Tugolesov, 4 pp

"Iz Ak Nauk SSSR, Ser Geol" No 6

From a study of the present water balance in the Caspian and analysis of the conditions governing transgression and regression, it seems evident that they cannot be explained by tectonic movements. Only explanation must be climatic variations conditioning corresponding changes in the water basin of the sea.

FDD

60/49T41



OFFMAN, Petr. Yevgen'yevich; TUGOLESOV, D.A., otv.red.; GALUSHKO, Ya.A.,  
red.izd-va; LAUT, V.G., tekhn.red.

[Origin of the Timan Ridge] Proiskhozhdenie Timana. Moskva, Izd-  
vo Akad.nauk SSSR, 1961. 137 p. (Akademiia nauk SSSR. Geologicheskii  
institut. Trudy, no.58). (MIRA 14:12)  
(Timan Ridge--Geology)

MOSKVITIN, Aleksandr Ivanovich; TUGOLMSOV, D.A., kand.geologo-mineral.  
nauk, otvetstvennyy red.; VOLYNSKAYA, V.S., red.izd-va; GUSEVA,  
I.M., tekhn.red.

[Quaternary sediments and formation of the middle Volga Valley]  
Chetvertichnye otlozheniia i istoriia formirovaniia doliny r.  
Volgi v ee srednem techenii. Moskva, Izd-vo Akad. nauk SSSR,  
1958. 208p. (Akademiia nauk SSSR. Geologicheskii institut.  
Trudy, no.12) (MIRA 11:12)  
(Volga Valley--Geology, Stratigraphic)

TUGOLESOV, D.A.

Tectonics of the Greater Balkhan horst. *Biul. MOIP. Otd. geol.*  
35 no. 3:129-145 My-Je '60. (MIRA 14:2)  
(Greater Balkhan Range—Geology, Structural)

TUGOLESOV, D. A.

USSR/Geophysics - Siberian Platform, Mar/Apr 52  
Tectonics

"Tectonics of the Southeastern Part of the Siberian  
Platform," D. A. Tugolesov

"Iz Ak Nauk SSSR, Ser Geol" No 2, pp 89-101

Describes the unusual folds of Lower Paleozoic  
rocks in the Nepa River basin. Compares them  
with the folds of the Lensk zone and explains  
the origin. Expresses an assumption concerning  
the presence, in the Podkamenna Basin and Lower  
Tungus, of extensive Lower Paleozoic antecline  
hidden under the deposits of the Tungus series.

213T79

TUGOLESOV, N. A.

Geology - Central Asia

Tectonics of the southeastern part of the Siberian Platform, Izv. AN SSSR. Ser. geol.  
No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, July 1953. Unclassified.  
2

TOPIC TAGS: [illegible]

-- the coverage function related to the five radiation types (D, D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub>, D<sub>4</sub>) and

Further data are presented on the contents of each mix tested.

Ag/m is found to be most economical. Orig. Art. has: 4 figures, 1 table, 1 page.

ACCESSION NR: AP4012262

S/0089/64/016/001/0026/0032

AUTHORS: Broder, D.L.; Zaytsev, L.N.; Sy#chev, B.S.; Tugolukov, A.M.

TITLE: Effect of water content in concrete on the thickness of the reactor shield and its cost.

SOURCE: Atomnaya energiya, v.16, no.1, 1964, 26-32

TOPIC TAGS: reactor shield, biological reactor protection, reactor shield cost, reactor shield water concentration, optimal reactor protection

ABSTRACT: The purpose of the present work is to determine the economical aspect of the increasing amount of water in concrete for reactor shieldings. Increasing the water content in concrete increases its hydrogen concentration which effectively reduces the leakage of fast and intermediate neutrons because of the large cross section of hydrogen for fast and intermediate neutrons. Various types of concrete used for reactor shieldings have hydrogen concentration within the 12% range. The authors have computed the biological protection

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ACCESSION NR: AP4012262

afforded by various types of concrete. The reactor considered has a graphite moderator, a reflector, and a concrete external shield. For computation, the known absorption cross sections for fast and intermediate neutrons for the elements present in the concrete were used. It follows from the computations that the cost is minimal for a shield of an ordinary concrete with  $2300 \text{ kgm/m}^3$ . For the heavy concrete ( $4000 \text{ kgm/m}^3$ ) the cost is minimal when the water content is the smallest, and for a concrete with a higher density the minimum cost is when the water content is at its maximum. "The authors are grateful to A.M. Komarovskiy for interest and practical advice." Orig. art. has: 5 figures and 4 tables.

ASSOCIATION: None

SUBMITTED: 08Aug63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: NS,BC

NR REF SOV: 005

OTHER: 006

Card 2/2

9427-66 BWT(m)/EWP(j) RM

ACC NR: AP5027728

UR/0065/65/000/000/0042/0046  
66.051.5 4

AUTHOR: Englin, B.A.; Plate, A.F.; Tugolukov, V.M.; Pryanishnikova, H.A.

44,55  
44,55  
44,55  
71  
90  
B

TITLE: Water solubility in individual hydrocarbons

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 9, 1965, 42-46

TOPIC TAGS: solubility, water, hydrocarbon, aromatic hydrocarbon, alkyl radical, atomic structure, molecular weight, carbon, fuel, aviation gasoline, ice, crystal, solvent action, organic solvent, solution concentration

ABSTRACT: This research was carried out because the available data on water solubility is confined to a limited number of hydrocarbons and are frequently inconsistent. The experiments were carried out with 61 hydrocarbons of different classes at various temperatures. The experimental results show that 1) water solubility in hydrocarbons is greatly affected by the hydrocarbon structure; 2) water solubility is highest in aromatic hydrocarbons particularly in benzene; 3) water solubility in aromatic hydrocarbons is mainly conditioned by the molecular weight and side-chain branching of the hydrocarbons, decreasing more drastically with increase in molecular weight and less drastically with side-chain branching; 4) substitution of a five-member cycloalkyl radical for an alkyl radical in the aromatic ring has no substantial effect on the water solubility; 5) water solubility in bicyclic aromatic hydrocarbons is higher than

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L 9427-66

ACC NR: AP5027728

in monocyclic containing the same number of carbon atoms; 6) water solubility in naphthenic hydrocarbons and paraffins also decreases with an increase in molecular weight but to a lesser degree than in aromatic hydrocarbons; 7) water solubility in paraffins increases with an increase in branching; 8) at the same molecular weight all six-member naphthenic hydrocarbons dissolve less water than the five-member hydrocarbons; 9) naphthenic hydrocarbons with alkyl groups of normal structure as side chains are capable of dissolving more water than normal paraffins of corresponding molecular weight; 10) bicyclic naphthenic hydrocarbons dissolve considerably less water than monocyclic hydrocarbons with the same number of carbon atoms; 11) unsaturated hydrocarbons are capable of dissolving more water than naphthenic hydrocarbons and paraffins of corresponding structure, but water solubility in unsaturated hydrocarbons is lower than in aromatic hydrocarbons differing in this respect with data by J.W. Gibbs. Collected Work. New York, 1931 and C. Black et al. J. Chem. Phys., v. 16, no. 5, 1943; and 12) bicyclo [2.2.1] heptadiene dissolves less water than its isomeric toluene but more than methyl cyclohexane having the same number of carbon atoms; the same is true of 1,4,5,8 - Bisendomethylene - 1,4,4a,5,8,8a - hexahydronaphthalene. It is noted that the water solubility in cycloheptatrien is greater than even in toluene. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: FP, GC

NO REF SOV: 009

OTHER: 004

Card 2/2 *ada*

ENGLIE, B.A.; CHERTKOV, Ya.B.; TUGOLUKOV, V.M.

Corrosion of cadmium coatings by fuels high in mercaptans and  
ways of its prevention. Khim. i tekhn. topl. i masel 3 no.9:  
38-43 S '58. (MIRA 11:10)  
(Cadmium--Corrosion) (Airplanes--Fuel)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757410006-0

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757410006-0"

ENGLIN, B.A.; ROZHKOV, I.V.; TUGOLUKOV, V.M.; SAKODYNSKAYA, T.P.

Preventing the formation of ice crystals in airplane fuels.

Khim. i tekhn. topl. i masel 8 no.12:50-55 D '63. (MIRA 17:1)

ENGLIN, B.A.; TUGOLUKOV, V.M.

Content of water absorbed by hydrocarbon fuels as determined by  
the difference of fuel and air temperatures. Khim.i tekhn. topl.i  
masel 5 no.3:45-49 M<sub>r</sub> '60. (MIRA 13:6)  
(Hydrocarbons) (Fuel--Analysis)

L 22233-66 EWP(j)/EWT(m)/T/EWP(v) IJP(c) RM/WW/WE

ACCESSION NR: AP6006494

(N)

SOURCE CODE: UR/0138/65/000/010/0052/0054

AUTHOR: Englin, B. A.; Solomatin, A. V.; Fomina, A. M.; Tugolukov, V. M. 79

ORG: Scientific-Research Institute of the Rubber Industry (Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti) B

TITLE: Investigation of the mutual effect of rubber coatings and fuels on their properties during storage 15

SOURCE: Kauchuk i rezina, no. 10, 1965, 52-54

TOPIC TAGS: glue, jet fuel, fuel storage, storage tank, insulated storage tank, fuel contamination, fuel corrosiveness, rubber, surface active coating, corrosion protection/SKN 26 rubber, SKN 40 rubber, T 1 jet fuel, T 2 jet fuel, 88 N glue, 3 300 glue, DS diesel fuel

ABSTRACT: The authors studied the effect of fuels on the degree of swelling of SKN-26 and SKN-40 rubbers and the effect of these rubbers, as well as brand 88-N and 3-300 glues and a sealing agent based on a brand U-30s Thiokol paste, vulcanized at room temperature and at 145C, on the properties of fuels. The degree of swelling of the rubbers was investigated in T-1 and T-2 jet fuels, in DS diesel fuel, and in solar oil at a temperature of 18-25C for a period of 6 months. In Card 1/2 2

UDC: 678.026.3:662.75:539.196



L 22233-66

ACCESSION NR: AP6006494

order to select control media, mixtures containing 80% cetane and 20% green oil or 90% cetane and 10% green oil were used for the study of the degree of swelling of rubber. It was found that the degree of swelling of SKN-26 rubber in T-1 and T-2 and in DS amounts to 10—15%, and that of SKN-40 rubber to 8—12%. In the contacting of the rubber coatings of fuel storage tanks with jet fuels, the greatest effect on the acidity of the fuels is produced by SKN-40 rubber and brand 88-N glue. SKN-26 rubber has an insignificant effect on the acidity of the fuels. U-30s sealing agent has almost no effect on the acidity of the fuels. Brand 88-N glue has the greatest effect on the content of gums in the fuel, i.e., the acidity of the fuels and the gum content in the fuels increase. The other physicochemical properties of the fuels remain unaltered. In conclusion, the authors recommend SKN-26 rubber with any glue and a sealing agent based on brand U-30s Thiokol paste as an anticorrosion coating for fuel storage tanks. Orig. art. has: 1 figure and 3 tables.

SUB CODE: 07, 11 / SUBM DATE: none

Card 2/2 not

LYSENKO, T.D.; MALANICHEVA, V.G.; OGAREVA, N.V.; TARARYSHKIN, M.Ye.;  
TUGOLUKOV, V.M.; SHCHETSKO, M.I.

Increasing the precision of the calcium hydride method for the  
volumetric determination of water in fuels. Khim.i tekhn.topl. i  
masel. 3 no.8:71-72 Ag '58. (MIRA 11:9)  
(Fuel--Analysis) (Water--Analysis)

83406

S/065/60/000/003/001/003  
E071/E484

11.12.10  
AUTHORS:

Englin, B.A. and Tugolukov, V.M.

TITLE:

The Dependence of the Content of Dissolved Water in  
Hydrocarbon Fuels on the Temperature Difference  
Between Fuel and Air

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960; No.3,  
pp.45-49

TEXT: It was shown earlier (Ref.1) that irrespective of  
temperature and the hydrocarbon composition of fuels, their content  
of dissolved water at a given temperature is directly related to  
the relative air humidity and is governed by Henry's law according  
to the formula

$$C = C_{\max} \Psi = \frac{C_{\max}}{P_{\text{sat}}} P$$

where: C - the water content of the fuel at a given relative air  
humidity and temperature; C<sub>max</sub> - maximum content of water  
soluble in the fuel at a given temperature; Ψ - relative humidity;  
P - water vapour pressure at a given temperature; P<sub>sat</sub> - saturated  
vapour pressure of water at a given temperature. The validity of  
the above formula was confirmed only for the case when air and fuel  
Card 1/3

83406  
S/065/60/000/003/001/003  
E071/E484

The Dependence of the Content of Dissolved Water in Hydrocarbon Fuels on the Temperature Difference Between Fuel and Air

temperatures are equal. In the present work the validity of this formula for conditions when the fuel temperature is above or below that of air was investigated. The experimental procedure is described in some detail. The experimental data indicated that: 1) on simultaneous lowering of fuel and air temperature, at a constant relative air humidity or even with humidity increasing by 20 to 30%, the content of water dissolved in the fuel decreases; 2) due to the fact that on cooling, the fuel temperature is somewhat higher than that of the air, the difference in the water content of fuel before and after cooling increases with increasing temperature difference between air and fuel; 3) on warming up, the air temperature is usually higher than that of fuel. At a certain temperature difference between air and fuel, which is determined by the relative humidity of the air, the condensation of water vapour from air into fuel can take place. With simultaneous decrease in the air and fuel temperature, the content of water in the fuel decreases, and so the excess water should either pass into the air or separate as a second liquid phase. The latter often

Card 2/3

83406

S/065/60/000/003/001/003  
E071/E484

The Dependence of the Content of Dissolved Water in Hydrocarbon  
Fuels on the Temperature Difference Between Fuel and Air

takes place when the excess water is not completely transferred  
from fuel to air. If the separation of water from fuel and its  
condensation from air into fuel takes place at negative  
temperatures, ice crystals form in the fuel. It is concluded  
that the above formula for calculating the content of water  
dissolved in fuel is also valid when the air and fuel temperatures  
are not the same. There are 3 figures, 2 tables and  
5 references; 4 Soviet and 1 English.

X

Card 3/3

ACCESSION NR: AP4004702

S/0065/63/000/012/0050/0055

AUTHOR: Englin, B. A.; Rozhkov, I. V.; Tugolukov, V. M.; Sakody\*nskaya, T. P.

TITLE: Prevention of ice crystal formation in aviation fuels

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 12, 1963, 50-55

TOPIC TAGS: aviation fuel, ice formation, ethylcellosolve, fuel additive, antifreeze

ABSTRACT: A study has been made of the effectiveness of cellosolve (GOST 8313-60) as an antifreeze additive for T-1 and TS-1 jet fuels and B-95/130 aviation gasoline. Previous tests showed that of 100 compounds tested, cellosolve is the most effective. In studying the formation of ice in the fuels in the presence of cellosolve, the following conditions were varied: temperature (down to -60C), moisture content (0-0.13%), cellosolve content (0-0.3%), ambient relative humidity, and storage time in the laboratory, in ground storage, and in flight. Under all the conditions studied, the addition of 0.3% cellosolve completely prevented the formation of ice in the fuels. The

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ACCESSION NR: AP4004702

presence of cellosolve in the fuels had no negative effect on either the physicochemical properties or the performance characteristics of the fuels. Moisture absorption in storage at 30—100% relative humidity was studied in a 1-yr test with T-1, TS-1, and B-95/130 fuel samples without cellosolve or containing 0.3% cellosolve. The moisture content of the latter remained nearly the same as that of controls throughout the year. Orig. art. has: 4 tables and 2 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 03Jan64

ENCL: 00

SUB CODE: FL

NO REF SOV: 007

OTHER: 007

Card 2/2

SOV/65-58-9-8/16

AUTHORS: Englin, B. A; Chertkov, Ya. B; Tugolukov, V. M.

TITLE: Disintegration of Cadmium Coatings in Fuels With Increased Mercaptan Content and Methods of Preventing the Same.  
(Razrusheniye kadmiyevykh pokrytiy v toplivakh s povyshennym soderzhaniyem merkaptanov i puti ego pre-dotvrashcheniya)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 9, pp 38 - 43, (USSR)

ABSTRACT: When using fuels with increased mercaptan content gelatinous deposits are formed which can lead to a reduction or cutting off of the fuel supply into the engine. In aeroplane engines a decrease in the temperature leads to separation of the excess water from the fuel and deposition on the surface of the engine components in the form of microscopic droplets. According to I.Ye. Bespolov et al. the degree of disintegration of coating is proportional to the weight loss of the article which is made of cadmium and inversely proportional to the mercaptan content in the fuel. On analysing the deposits it was found that they mainly consist of cadmium mercaptides (Ref.4). Analogous results were obtained by the authors. Fuels with the following mercaptan con-

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SOV/65-58-9-8/16

Disintegration of Cadmium Coatings in Fuels With Increased Mercaptan Content and Methods of Preventing the Same.

tent were tested: TS-1 (0.047%), fuel T-2 (0.052%), cracking-kerosene (0.059%) and also fuel TS-1 (GOST 7149-54: 0.005%) and T-1 (GOST 4138-49: 0.0003%). Three samples were prepared from each fuel (desiccated, saturated with water and with natural water content). Cadmium coils were placed in these samples and stored for ten days under conditions analogous to those which occur in the fuel systems of aeroplanes. Table 1 gives the results obtained during the storing of cadmium coils in fuels with varying water and mercaptan content after ten days. The formation of deposits in the fuel and precipitation on the cadmium coils is accompanied not only by a decrease in the mercaptan content and loss of weight of the coils, but by decrease in the amount of water dissolved in the fuel (Table 2). Table 3: the composition of the deposit formed on the cadmium coil during prolonged storing in a tank containing the standard oil TS-1. Spectral semi-quantitative analysis of the ash was carried out by the Institute of Geochemistry, AN USSR (Institut geokhimii, AN SSSR), and the composition

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SOV/65-58-9-2/16

Disintegration of Cadmium Coatings in Fuels With Increased Mercaptan Content and Methods of Preventing the Same.

was as follows: Cd - 43.75%, Si - 10%, Cu - 7.5%, Mg - 1.9%, Al - 1.9%, Fe - 0.3%, Zn - 0.3%, Cr - 0.3%, Ca - 0.3%, Pb, Ba, Sb, Ni, Na - traces. Elementary analysis confirmed that the disintegration products consisted of sulphur compounds of cadmium, and that the formation of deposits is mainly due to the presence of aliphatic mercaptans and an increased water content. During further tests the addition of amine vat residues as effective additives to the fuel was investigated. These residues had a boiling point above 100°C, a molecular weight of 150 and contained 7% of N. 0.005 - 0.03% of this residue was added to the fuel TS-1 containing 0.047% mercaptans. Results are given in Table 4. These additives inhibited the disintegration of the cadmium coatings. The amines used as surface active agents protect the metallic surface from direct contact with and the action of mercaptans. Table 5: data on the disintegration of cadmium coils in fuels containing 0.03% of amine vat residues (water content in the fuel = 0.0099%). The amine residues dissolve

Card 3/4

SOV/65-58-9-8/16

Disintegration of Cadmium Coatings in Fuels With Increased Mercaptan Content and Methods of Preventing the Same.

easily in the fuel and do not separate out either at low or at increased temperatures. There are 5 Tables and 7 References: 1 English and 6 Soviet.

- |                                     |                            |
|-------------------------------------|----------------------------|
| 1. Fuel additives--Chemical effects | 2. Fuels--Moisture factors |
| 3. Cadmium coatings--Disintegration | 4. Thiols--Performance     |
| 5. Fuels--Test methods              |                            |

Card 4/4

11.4000

77937  
SOV/65-60-3-10/19

AUTHORS: Englin, B. A., Tugolukov, V. M.

TITLE: Relation Between the Amount of Dissolved Water in Hydrocarbon Fuels and Temperature of Fuel and Air

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, Nr 3, p 49 (USSR)

ABSTRACT: The amount of dissolved water in hydrocarbon fuel can be calculated by the formula:  $C = \frac{C_{\max}}{P_w^{\text{sat}}} P$ ; where  $C$  is the amount of water in fuel at given temperature and relative humidity;  $C_{\max}$  is maximum amount of water in fuel at given temperature;  $P_w^{\text{sat}}$  is pressure of saturated water vapor at given temperature; and  $P$  is pressure of water vapor at given temperature. The results of experiments are shown in Table 1. The amount of water in fuel decreases when the temperature of air and that of fuel is lowered simultaneously and at the same relative humidity

Card 1/4

Relation Between the Amount of Dissolved  
Water in Hydrocarbon Fuels and Temperature  
of Fuel and Air

77937  
SOV/65-60-3-10/19

of the air, or even when the relative humidity of air increases by 20-30%. Since the temperature of fuel is higher than that of air on cooling, the difference in the amount of water prior and after cooling increases proportionally to the difference of the temperature of air and fuel. Condensation of water vapors from air into the fuel takes place when the temperature of air rises. There are 2 tables; 3 figures; and 5 references, 4 Soviet, 1 U.S. The U.S. reference is: Greer, J. Amer. Chem. Soc., 52, 4191 (1930).

Card 2/4

1	2		5	6		8	10	11
	3	4		p	q			
T-1	30	21,5	60	11,4	31,8	0,0109	0,0039	0,0039
	40	21,5	60	11,4	55,3	0,0160	0,0031	0,0033
	-7	-2	54	2,1	2,53	0,0035	0,0028	0,0029
	-7	-2	85	3,2	2,53	0,0035	0,0041	0,0035 *
	13	23	66	13,9	11,3	0,0050	0,0273	0,0050 *
	4	23	66	13,9	6,1	0,0040	0,0155	0,0040 *
TS-1	18	24	53	11,9	15,5	0,0075	0,0061	0,0058
	2	26,5	10	2,6	5,29	0,0040	0,0024	0,0020
	4,5	26	30	7,6	6,3	0,0045	0,0073	> 0,0045 *
	6,0	26	25	6,3	7,0	0,0047	0,0036	0,0042
	50	23,8	87	19,2	92,5	0,0280	0,0063	0,0058
	50	25,5	83	20,3	92,5	0,0280	0,0055	0,0060
	40	25,5	88	21,6	55,3	0,0180	0,0068	0,0070
	20,7	26	84	21,2	31,4	0,0125	0,0079	0,0084
Toluene	50	18	95	14,7	92,5	0,0970	0,0166	0,0154
	50	21,5	95	18,2	92,5	0,0970	0,0211	0,0192
	40,5	26,5	88	22,9	56,8	0,0775	0,0337	0,0313
	30	26,5	84	21,8	31,8	0,0620	0,0453	0,0425
	3,5	19	8	4,3	5,9	0,0255	0,0055	0,0056
	3,0	19,5	15	2,5	5,7	0,0250	0,0146	0,0110
	4,5	22	31	6,13	6,3	0,0266	0,0269	0,0259

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Table 1.

77031  
307/65-60-3-10/19

Relation Between the Amount of Dissolved  
Water in Hydrocarbon Fuels and Temperature  
of Fuel and Air

77937

SOV/65-60-3-10/19

Key for Table 1. (1) Fuel; (2) temperature, ° C;  
(3) of fuel; (4) of air; (5) relative humidity of air,  
%; (6) pressure of water vapor, mm Hg; (7)  $p_w^{\text{sat}}$ ;  
(8)  $C_{\text{max}}$ ; (9) amount of water, %; (10) determined by  
the use of calcium hydride; (11) calculated by formula.

Card 4/4

SOV/65-58-9-14/14

**AUTHORS:** Lysenko, T. D.; Malanicheva, V. G.; Ogareva, N. V.;  
 Tararyshkin, M. Ye; Tugolukov, V. M. and Shchetzko, M. I.

**TITLE:** A More Accurate Definition of the Volume Calcium Hydride  
 Method for Determining the Water Content in Fuels.  
 (Utochneniye ob"yemnogo gidridkal'tsiyevogo metoda  
 opredeleniya soderzhaniya vody v toplivakh).

**PERIODICAL:** Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.3.  
 pp. 71 - 72. (USSR).

**ABSTRACT:** Experiments were carried out to compare different  
 variations in the V-method and P-method for measuring  
 the pressure of hydrogen separated during the interaction  
 of calcium hydride and water. The following types of  
 apparatus were used: V-method: apparatus by V. M. Tugolukov  
 and the one designed by VNII NP and the Institute im.  
 P. I. Baranov; P-method: apparatus by T. D. Lysenko and the  
 device designed by the Institute of Petroleum, AS USSR  
 (Institut Nefti AN SSSR). The time required for testing  
 various synthetic mixtures as listed in Table 1 varied  
 between 3 - 4 hours. Various modifications of the  
 VNII NP device and the apparatus designed by the Institute  
 im. P. I. Baranov are suggested (Fig.1). The accuracy  
 of the new apparatus for the V-method was tested and

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SOV/65-58-8-14/14  
A More Accurate Definition of the Volume Calcium Hydride Method for  
Determining the Water Content in Fuels.

results of parallel tests on the older and modified  
apparatus given in Table 2. The new method was accepted  
by the USSR Standard Committee (Komitet standartov  
mer i izmeritel'nykh priborov pri Sovete ministrov soyuzn  
SSR) as the Standard GOST 8287-57. There is 1 Figure,  
and 2 Tables.

1. Fuels--Moisture content
2. Calcium hydride--Chemical reactions
3. Water--Chemical reactions
4. Fuels--Testing equipment

USCOP: 11-11-11

Card 2/2

ENGLIN, B.A.; TUGOLUKOV, V.M.; SAKODYNSKAYA, T.P.

Relationship of the dissolved water content of hydrocarbon  
fuels to relative humidity at different temperatures. Khim.  
i tekhn. topl. no. 11:43-46 N '56. (MLRA 9:11)

1. Nauchno-issledovatel'skiy institut goryuche-smazochnykh  
materialov.

(Hydracarbons) (Fuel) (Humidity)

ENGLIN, B.A.; SOLOMATIN, A.V.; ~~TUCOLUKOV, V.M.~~; FOMINA, A.M.

Studying the effect of interference of rubber coatings and fuel  
on their properties during storage. Kauch. i rez. 24 no.10:52-54  
'65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.

TUGOLUKOV, V.N.

Method for the determination of the functional state of the  
gastric mucose, in the clinic. Vest. AMN SSSR. 18 no.10:76-82  
'63. (MIRA 17:6)

1. Leningradsкая laboratoriya po gastroenterologii AMN SSSR  
i Leningradskiy sanitarno-gigiyenicheskiy meditsinskiy institut.

TUGOLUKOV, V. N.

Metabolism of ascorbic acid and thiamine in old age. Trudy  
LSQMI 67:84-92 '62. (MIRA 15:7)

1. Kafedra gigiyeny pitaniya s klinikoy alimentarnykh zabole-  
vaniy Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo  
instituta (zav. kafedroy - prof. Z. M. Agranovskiy).

(ASCORBIC ACID) (THIAMINE) (GERIATRICS)

MASEVICH, TS., G.; TUGOLUKOV, V. N.

Quateleron and fubromegan in the treatment of peptic ulcer. Terap.  
arkh. no.12:68-76 '61. (MIRA 15:2)

1. Iz kafedry propedevtiki vnutrennikh zabolevaniy (zav. - chlen-korrespondent AMN SSSR prof. S. M. Ryss) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, laboratorii po gastroenterologii Akademii meditsinskikh nauk SSSR i Instituta tonkoy organicheskoy khimii Akademii nauk Armyanskoy SSR (dir. - akad. A. L. Mndzhoyan)

(PEPTIC ULCER) (PARASYMPATHOLYTICS)

TUGOLUKOV, V. N.

Study of the functional capacity of the principal gastric glands  
in chronic gastritis with secretory insufficiency. Terap. arkh.  
34 no.4:87-94 '62. (MIRA 15:6)

1. Iz kafedry propedeviki vnutrennikh zabolevaniy Leningrad-  
skogo sanitarno-gigiyenicheskogo meditsinskogo instituta i  
laboratorii po gastroenterologii AMN SSSR (nauchnyy rukovo-  
ditel' - chlen-korrespondent AMN SSSR prof. S. M. Ryss)

(STOMACH—INFLAMMATION)  
(STOMACH—SECRETIONS)

DANILIN, I.I., starshiy nauchnyy sotrudnik; TUGOLUKOV, V.N., kand.med.nauk

Effect of ionized air on blood coagulation and erythrocyte sedimentation reaction in donors. Akt.vop.perel.krovi no.4:41-43 '55.  
(MIRA 13:1)

(AIR, IONIZED--PHYSIOLOGICAL EFFECT)  
(BLOOD--COAGULATION) (BLOOD--SEDIMENTATION)



TUGOLUKOV, V. N.

"Relating to the Method of Determining the Prothrombin of the  
Blood and Its Application in the Clinic." Cand Med Sci, Leningrad  
Medical Stomatological Inst, Leningrad, 1953. (RZhBiol, No 1,  
Sep 54)

SO: Sum 432, 29 Mar 55

TUGOLUKOV V N

USSR/Medicine - Physiology

Card 1/1 Pub. 22 - 55/56

Authors : Reznichenko, M. B.; Tukachinskiy, S.E.; and Tugolukov, V. N.

Title : The dynamics of separating plant albumena from blood vessels

Periodical : Dok. AN SSSR 99/5, 873-875, Dec 11, 1954

Abstract : It was established that albuminous plasmo-substituting solutions, due to their high colloidal-osmotic pressure, remain for a long period of time in the blood stream and are therefore considered more effective than salt solutions which do not contain substances of a colloidal nature. Experiments were conducted to determine the length of time foreign (plant) albumena can remain in the blood stream and the dynamics of their separation from the blood. The results obtained are described. Six references: 4-USSR and 2-USA (1944-1954). Graphs.

Institution: Scientific Research Institute for Blood Transfusion, Leningrad

Presented by: Academician A. I. Oparin, October 15, 1954

TUGOLEUKOV, V.N.

Micromethod of determining prothrombin in blood. Lab.delo no.4:  
17-19 Jy-Ag. '55. (MLRA 8:8)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta prer-  
livaniya krovi (dir. A.Ye. Kiselev)  
(PROTHROMBIN TIME, determination,  
micromethod)

TUGOLUKOV, V.N.

Determination of pepsin in the gastric juice and pepsinogen in the urine by the same method. Lab. delo 8 no.3:3-6 Mr '62. (MIRA 15:5)

1. Kafedra propedevtiki vnutrennikh zabolevaniy (zav. - chlen-korrespondent AMN SSSR prof. S.M.Ryss) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

(PEPSIN) (GASTRIC JUICE)  
(URINE--ANALYSIS AND PATHOLOGY) (PEPSINOGEN)

TUGOLUKOV, Vitaliy Nikolayevich; KOMAROV, F.I., red.

[Modern methods of the functional diagnosis of the state  
of the gastric mucous membrane and their clinical significance]  
Sovremennye metody funktsional'noi diagnostiki sostoiانيا  
slizistoi obolochki zheludka i ikh klinicheskoe znachenie.  
Leningrad, Meditsina, 1965. 210 p. (MIRA 18:10)

USSR/Cultivated Plants. Technical Plants. Oil and Sugar Bearing Plants.

Abs Jour : Ref Zhur-Biol., No 15, 1958, 68286

Author : Tugolukova, V. Ya.

Inst : All-Union Scientific Research Institute of Best Crops.

Title : Perennial Sida, a New Type of Fiber Raw Material.

Orig Pub : Tr. Vses. n.-i. in-t lub. kul'tur, 1957, No 22, 213-223

Abstract : In 1951-1954, research was carried out with perennial sida stalks of various ages which was grown in Glukhovo (Sury Oblast') and in Belorussia (Belorussian Agricultural Academy). This research indicates that this plant may

Card : 1/2

USSR/Cultivated Plants. Technical Plants. Oil and  
Sugar Bearing Plants. H

Abs Jour : Ref Zhur-Biol., No 15, 1958, 63286

serve as a new and valuable source of fiber. The internal structure of the sida stalks resembles that of Deccan hemp, jute, and abutilon. The fiber quality can be greatly improved when fertilizers are applied. Analyses of the fiber from straw of the Elite B-67 plants grown at the Belorussian Agricultural Academy, gave the following quality indices: thinness, 40.6; resistance to breaking, 723 double bonds; flexibility, 18.9 cm, breaking length, 16.5 km [sic]; strength, 25.7 kilograms. -- A. Li. Smirnov

Card : 2/2

TUGOLUKOVA, V.Ya.

Effect of moisture on the changes in the strength of scutched kenaf  
fibers. Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.1:47-50 '65.  
(MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lubyanykh kul'tur.



TUGOLUKOVA, V. YA.

TUGOLUKOVA, V. YA.: "Perennial 'sida' as a new type of fiber raw material."  
Min Agriculture USSR. All-Union Sci Res Inst of Bast Crops. Glukhov,  
1956. (Dissertation for the Degree of Candidate in Technical Science.)

So: Knizhnaya letopis', No. 37, 1956. Moscow.

LESIK, B.V.; TUGOLUKOVA, V.Ya.

Effect of the preparation methods of raw materials on the quality of  
hemp goods and their resistance to destruction under humid conditions.  
Izv.vys.ucheb.zav.;tekh.tekst.prom. no.2:36-40 '60. (MIRA 13:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lubyanykh kul'tur.  
(Hemp)

TUGOV, I.I., kandidat tekhnicheskikh nauk.

Basic principles in the overall automatization of producing artificial leather and industrial fabrics. Leg.prom. 15 no.12:3-7  
D '55. (MLRA 9:5)  
(Leather, Artificial)(Textile fabrics)(Automatic control)

20

Cementing rubber soles by hot vulcanization without bonding with gutta-percha. 1. 1. Tugov. *Kacherehno-Obshchestvo Prom. S. S. S. R.* 19, No. 9-10, 31-2 (1940). The following formula is recommended for cementing rubber soles to leather shoes: Synthetic rubber 100, lamp black 80, rosin 20, stearic acid 2, ZnO 1, S<sub>2</sub>O 1, tetramethylthiuram disulfide 0.3, 1-mercaptobenzothiazole 1.2. The expts. are described and the results tabulated. A. A. B.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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**Polymerization of synthetic rubber in solution.** I. I. Tugov and A. D. Zolotarevskii. *Trudy Moskov. Khim. Inst. Lezhol. Prom. im. L. M. Kaganovicha* 1941, No. 2, 187-201. The purpose of the investigation was to study the possibility of polymerizing dissolved butadiene rubber and to det. the optimum polymerization conditions. The solvent for the rubber was the fraction b. 40-100° of carefully purified and dried naphtha. The extent of polymerization was estd. by the change in viscosity of the soln. The viscosity was detd. by the time required for a Ni ball to drop through the soln. The expts. were conducted in sealed L-shaped tubes of several catalysts tested, only metallic Na and  $H_2O_2$  were noticeably active; the others (HCl, bleaching time, diazaminobenzene, and tetralin peroxide) either behaved erratically or their effect was negligible. The effects of temps. of 20°, 50°, and 100° were tested. In these expts.  $H_2O_2$  showed its superiority

as a polymerization catalyst over Na. At 50° and 100° the tubes contg.  $H_2O_2$  cracked under the strain set up by the expanding polymer. Tubes contg. Na polymerized considerably at 50°. No further effect was observed at 100°. It was observed that adjacent to the particles of the catalyst polymerization was more intense than farther away from them. More or less even distribution of the catalyst throughout the reacting soln. could be insured only with  $H_2O_2$  and therefore only this catalyst was used in further expts. The effect of temps. was again tested at 20°, 35°, 50°, 75°, and 100°, at which the tubes were kept for 1-4 days. The greatest increase in viscosity was at 35-50°. Above 50° the increase was less and at 100° there was a drop in viscosity. The greatest increase of there was a drop in viscosity. The effect of the concn. of rubber was studied with 5, 7.5, and 10% solns., and 1% of  $H_2O_2$  of the dry wt. of rubber. The effect of catalyst concn. was studied with 0.5% concn. The greater the concn. of the catalyst the greater was the increase in viscosity and the sooner was the max. increase attained. For 5% catalyst, the max. was reached in 2 hrs. Once the max. viscosity was reached it remained const. Using various concns. of catalyst, the authors made expts. to det. whether an induction period is required. The induction period depended entirely on the concn. of the catalyst. It ranged from negligible for 5% in which case equil. (max. viscosity) was reached after 2 hrs. to approx. 2 days for 0.1%. In the last case an increase in viscosity became noticeable only after 2 days. Another series of expts. showed the catalytic effect of direct sunlight.

M. Huseh

TUGOV, I. I.

Neutralization of chromed leather shavings in the production of "plastic leather." G. A. Arbuzov, A. D. Zaionchkovskii, and I. I. Tugov. Trudy Moskov. Tekhnol. Inst. Legkoi Prom. im. L.M. Kaganovicha 1941, No. 3, 102-31. --Plastic leather is a leather substitute compounded of rubber, fibrous materials, carbon black, S, vulcanizing agents, and accelerators. The fibrous filler usually contains 75% of chrome leather shavings, 15% of powd. chrome leather or vegetable-tanned fibers, and 10% of linters. The fibrous materials usually make up approx. 35% of the recipe. The purpose of this investigation was to study the properties of chrome shavings and their effect on the quality of the product. Ordinarily the chrome shavings are acid (4-7% calcd. as  $H_2SO_4$  on moisture-free wt. of the shavings). In a 1:1 rubber-shavings mix, acidity of the shavings in excess of 2-3% retards vulcanization considerably. A 4% alk. (dry-wt. basis) of the shavings hastens vulcanization but the quality of the product is lowered. Low acidity (below 2%) hardly affects the rate of vulcanization and the product retains all of the desired qualities. The incoming shavings are neutralized preferably with an approx. 1%  $Na_2CO_3$  soln. at temp. up to 27° for 30 min. and washed after draining the alk. soln. A 2-tank neutralizing unit for chrome shavings is described.

M. Hosh

1ST AND 2ND COVERS															3RD AND 4TH COVERS														
PROCEDURES AND PROPERTIES INDEX																													
<div style="font-size: 2em; font-weight: bold; margin-bottom: 10px;">C A</div> <div style="border: 1px solid black; padding: 5px;"> <p>A calorimeter for the determination of heat effects in highly volatile, hazardous liquids. I. I. Tugov. Zashchitnoye Lab. 10, 633-4 (1941).—A calorimeter for the detn. of heat of soln., heat of reaction, etc., consists of a wide-neck glass jar contg. a Dewar vessel. The space between them is filled with cotton. The Dewar vessel is stoppered with a cork through which are passed a test tube contg. a Beckmann thermometer, a mixer, and a specially constructed automatic pipet. A bulb with the sample is sealed, wrapped with cotton, and placed upside down in the test tube. The test tube is stoppered and the thermometer lowered into the test tube. The pipet is filled with the sample soln. and after some manipulations within the system the bulb is broken with the mixer, the liquid stirred, and the change in the temp. measured. W. R. Henn</p> </div>															<div style="text-align: right; font-size: 2em; font-weight: bold; margin-bottom: 10px;">1</div>														
<div style="display: flex; justify-content: space-between;"> <div> <p>COMMON ELEMENTS</p> <p>COMMON ALLOYS INDEX</p> </div> <div> <p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p> </div> <div> <p>1ST AND 2ND COVERS</p> <p>3RD AND 4TH COVERS</p> </div> </div>																													

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Activation of chalk, kaolin, and other mineral fillers for rubber. I. I. Tugov and A. P. Pisarenko, USSR 66,711, July 31, 1946. Mineral fillers for rubber are impregnated with unsatd., readily polymerizable compounds, e.g., in products, and then heated at 200°C. M. Hoch

ASB S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

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PROCESSES AND PROPERTIES INDEX									
<p>The "Bogkhed" coals - a raw material for the production of leather substitutes. A. P. Pisarenko and I. L. Tugov. <i>Legkaya Prom.</i> 1040, No. 9/10, 8-10. - The "Bogkhed" coals (I) are pure sapropelite coals differing sharply in their origin, chem. compn., and other properties from all other coals. The characteristics of I and the semi-"Bogkhed" coals are, resp.: true d. 1.21-1.31 and 1.37-1.65, apparent d. 0.97-1.03 and 1.03-1.50, total moisture 6.81-16.90 and 8.58-25.68%, ash 8.14-16.04</p>									
<p>and 10.12-32.07%; total S 1.8-6.70 and 1.34-4.88%, org. substances 73.15-82.97 and 51.25-67.5%, caloric value 8834-8824 and 7248-8040 cal./g. Semicoking of I at approx. 400° yields gas 6-10, tar 45-60, and semicoke 30-40%. Finely ground I can be used as filler for many rubber products, plastic leather, leather substitutes, plastics, etc. As compared with C black this filler possesses a low activity and cannot, therefore, be used as a full-value substitute. Plastification of fine I yields a product possessing a high activity and some new properties, either in the form of a highly dispersed powder or in the form of a plastic material as a substitute for reclaim. The plastic material has: true d. 1.20-1.23, moisture 0.1-7.2%, ash 0.5-12.1% (of dry wt.), total S 2.8-3.9%, acetone ext. 2.4-3.7%, <math>\text{CHCl}_3</math> ext. 0.3-0.4%. Best results were obtained with the following plastifiers: lacrol, petroleum polymers, anthracene oil, natural drying oil. Studies of the effect of the temp. and duration of the plastification process showed that (1) increasing the temp. increases the swelling process; (2) with the increase in the duration of swelling the max. of swelling first increases, then decreases (this is explained by the soln. of I); (3) a max. degree of soln. is observed above 100°; (4) the max. degree of swelling of I in lacrol is 40%. W. R. H.</p>									
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>									
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<p>RESEARCH DIVISION</p>									

Crude Natural Rubber

S. of C. F.

Characteristic ratings of technological properties of rubber, rubber mixes, and resins. I. I. KARRER. *Latexa Proc.*, 1952, 10, Feb., p. 21. = *Kautschuk*, 1952, 29, 255. Ratings are proposed for the softness and "actual" plasticity of rubber in place of the plasticity values of E. Karrer used hitherto. Softness being taken to mean intensive deformation under little stress, incompressible, whether such deformation is permanent or elastic. A formula  $M = 2.1 \times 10^5 k_1 k_2 k_3$  is derived for softness,  $M$  (kg/cm<sup>2</sup>), where  $k_1$ , original diameter,  $k_2$ , original height, and  $k_3$ , final height of the test piece, compressed for 3 min. at 70 °C. with a constant load of 5 kg. This formula enables the softness to be determined absolutely and independently of the height  $k_3$  of the test piece. A dynamometer is used for measuring softness by attaining constant deformation, and a third possibility consists in pressing the mass through a specific cross section. In contrast to Karrer, the usual Kirsan definition of plasticity is taken to mean the property of a body to retain its form altered owing to an external deforming force. The degree of plasticity can be expressed by the ratio of the plastic deformation to the whole deformation. For this a formula is used:  $R = (k_1 k_2 / k_3) k_4$ , where  $R$  is the plasticity. While  $M$  gives a picture of energy consumption, uniformity of the mixing process, flowing power, and flow upon vulcanization,  $R$  characterizes the dimensional stability of the rubber mix when calculated, the same three of the calculated sheet, and so on.

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ASST. METALLURGICAL LITERATURE CLASSIFICATION

180T9

TUGOV, I. I.

USSR/Chemistry - Analysis

Nov 50

"Accelerated Determination of the Volatile Constituents in Glues, Mastics and Dyes," I. I. Tugov, Cen Sci Res Inst Leather Substitutes

"Zavod Lab" No 11, p 1403

Suggests accelerated method for detn of moisture and volatile constituents in various materials which form films upon drying. Samples of material under exam are compressed between 2 aluminum discs which, after weighing, are subjected to heating. Single detn takes 28-32 min compared to 3-4 hr required by ordinary method.

180T9

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" Rapid determination of volatiles in gums, mastics, and

paints. I. I. Tugov. *Zavodskaya Lab.* 16, 1403(1950).—  
Detn. of volatiles in specimens that form films on drying is  
given. The specimen is placed on an Al plate, covered with  
another Al plate, weighed, and the plates are sepd. and dried  
in a suitable oven. The disks are cooled on a steel plate and  
weighed. A 30-min. detn. give results reproducible within  
2% of true value. G. M. Kosolapoff